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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
VALENTI, ANDREA M	
ART UNIT	**PAPER NUMBER**
3643	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/786,695	DULANEY, NEAL	
	Examiner	Art Unit	
	Andrea M. Valenti	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,9,12-18 and 30-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 9, 12-18, 30-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims *1-5, 9, 12, 13, 16-18 and 30-33* are rejected under 35 U.S.C. 103(a) as being unpatentable over FILTERSTAR, S/ENS:841553-01 Inlet pipe; S/ENS:841545-01 Outlet pipe; 3 pages in view of U.S. Patent No. 5,542,451 to Foster.

Regarding Claims 1 and 18, FILTERSTAR teaches a modular water flow system for an aquarium (FILTERSTAR page 1 and 2) comprising: a water intake system (FILTERSTAR page 1 Inlet pipe) wherein the water intake system pulls water in from the aquarium through an inlet (FILTERSTAR page 1 Inlet Pipe, shaded pipe in the Fig.) which customizably pulls water in from multiple locations of the aquarium due to a propulsive force created by the pump (FILTERSTAR page 3 teaches it is customizable and is capable of being positioned at various locations within the aquarium); a water return system (FILTERSTAR page 2 Outlet pipe) wherein the water return system permits the water to return to the aquarium from multiple outlets customizable located in multiple locations of the aquarium (FILTERSTAR page 2 Outlet pipe has multiple outlets along its length thus "multiple locations" plus the pipe can be customizable located to different sides of the aquarium page 3); at least one valve assembly (FILTERSTAR page 3 Fig. G) to manage at least one of the water return system and the water intake

system to regulate a flow rate. Both the water intake and the water return system of FILTERSTAR can be positioned at different locations within the aquarium and are thus movably located.

FILTERSTAR teaches the water intake and water return systems have exterior portions outside of the tank and multiple interchangeable components. FILTERSTAR teaches a modular aquarium that regulates flow rate (FILTERSTAR, page 3 English Included section) with an overwall assembly unit (FILTERSTAR page 3 Fig. D and page1 and 2) which couples the interior portions of the modular water flow system to the exterior portions of the modular water flow system via a link wherein the link comprises at least one inlet port which is connected to at least one of the interior portions of the modular water flow system and at least one outlet port which is connected to at least one of the exterior portions of the modular water flow system, and the at least one inlet port is rotatably coupled to the corresponding interior portion of the modular water flow system; multiple interchangeable components connected to manipulate the flow of water into a desired pattern; and multiple attachment mechanisms (FILTERSTAR page 3 Included, spray bar and outlet nozzle) coupled to the interchangeable components which attach the interchangeable components to the aquarium (FILTERSTAR page 3 Included, set of suction cups).

FILTERSTAR is silent on explicitly teaching the water intake system pulls water in from the aquarium through multiple inlets and a pump. However, Foster teaches a pump (Foster #27) and general knowledge that it is desirable to pull the water through multiple inlet pipes located at multiple locations throughout the aquarium (Foster Fig.

10a', 10b', 10c'). It would have been obvious to one of ordinary skill in the art to modify the teachings of FILTERSTAR with the general knowledge taught by FOSTER since the modification is merely the duplication of a known element (i.e. inlet) multiplied for a multiple effect performing the same intended function modified for the advantage of creating regular natural currents as taught by Foster [*In re Harza*, 274 F.2d 669,671, 124 USPQ 378,380 (CCPA 1960)].

FILTERSTAR as modified teaches at least one movably mounted valve assembly (FILTERSTAR page 3 Fig. G) and that the system is a modular system that can change in size by adding and removing more sections/joints to the system (FILTERSTAR page 3 Fig. A), but is silent on explicitly teaching a plurality of valve assemblies to manipulate the flow of water in a desired pattern wherein the plurality of valve assemblies are movably mounted vertically or horizontally and wherein the plurality of valve assemblies regulate a flow rate of at least one of the water intake system and the water return system. However, it would have been obvious to one of ordinary skill in the art to further modify the teachings of FILTERSTAR at the time of the invention since the modification is merely the duplication of a known element for a multiple effect performing the same intended function of regulating the flow of water [*In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960)]. Valves are old and notoriously well-known water flow regulators in piping systems. They are known means of controlling i.e. starting and stopping the flow into a certain portion of a pipe. Piping systems notoriously include pluralities of valves so certain portions of the system can be shut down for maintenance and repair. (Cited purely as examples of piping systems

with a plurality of valves U.S. Patent No. 3,557,753 to Dantoni Fig.1 #30, 35, 33, 33'; U.S. Patent No. 6,125,791 to Gunderson et al teaches a valve at each of the nozzles #63B and 65B). It would have been obvious to one of ordinary skill in the art to duplicate the known valve with a plurality of valves to control different portions of the system.

Regarding Claim 2, FILTERSTAR as modified teaches wherein the water intake system, the water return system, and the valve assemblies are coupled by connecting pieces (FILTERSTAR page 1-3 and Fig. D and Foster Fig. 6 #59 and 49 are connected by a series of modular pipes).

Regarding Claim 3, FILTERSTAR as modified teaches wherein the connecting pieces further comprise at least one of the following: a coupling bracket, a tee bracket, and an elbow bracket (Foster Fig. 6 shows an elbow bracket attached between #47 and 49 and FILTERSTAR reaches elbows in Fig. D page 3).

Regarding Claims 4 and 5, FILTERSTAR as modified teaches wherein the connecting pieces are coupled to an attachment mechanism (FILTERSTAR page 3 Included, suction cups).

Regarding Claim 9, FILTERSTAR as modified teaches the outlet port is rotatably coupled to the corresponding exterior portion of the modular water flow system (FILTERSTAR page 3 and page 2).

Regarding Claim 16, FILTERSTAR as modified teaches wherein the water return system further comprises at least one spray bar having at least one aperture (Foster Fig. 13 #60 and FILTERSTAR page 3 Fig. G).

Regarding Claim 17, FILTERSTAR as modified teaches at least one pipe (Foster Fig. 6 section between #47 and elbow of #49 and FILTERSTAR Fig. D) connected on each end by at least one connecting piece and located between the water intake system and the water return system.

Regarding Claim 30, FILTERSTAR as modified teaches the inlet portion is rotatably coupled to the interior portions of the modular water flow system to facilitate positioning of the modular water flow system (FILTERSTAR page 1 and page 3).

Regarding Claim 31, FILTERSTAR as modified teaches at least one valve assembly to manage at least one of the water return system and the water intake system to regulate a flow rate wherein the valve assembly further comprises one or more openings and a regulator which regulates the rate at which water enters the water intake system or the rate at which water returns from the water return system. (Foster Col. 10 line 10-12 and element #17 is attached to the motor Col. 6 line 11-14 and motor speed is adjustable Col. 6 line 42-49; FILTERSTAR page 3 Included "flow adjustment valve", and FIG. G).

FILTERSTAR is silent on explicitly teaching that the water intake system has a valve assembly to regulate flow rate. However, it would have been obvious to one of ordinary skill in the art to modify the teachings of FILTERSTAR at the time of the invention since the modification is merely the duplication of a known element (FILTERSTAR page 3 Fig. G) modified for the advantage of controlling water flow at different locations in the system during maintenance procedures. Furthermore, the valve of Foster controls the flow rate of the intake. It would have been obvious to one of

ordinary skill in the art to further modify the teachings of FILTERSTAR with the teachings of Foster at the time of the invention to create a natural current as taught by Foster (Foster Col. 10 line 2).

Regarding Claim 32, FILTERSTAR as modified teaches wherein the regulator further comprises an adjustment mechanism adjustable by an aquarist, which regulates the rate at which the water enters the water intake system or the rate at which the water returns from the water return system (Foster Col. 10 line 10-12 and element #17 is attached to the motor Col. 6 line 11-14 and motor speed is adjustable Col. 6 line 42-49 the aquarist can adjust valve #58 and the motor speed; FILTERSTAR page 3 Included "flow adjustment valve" can be adjusted by the valve handle).

Regarding Claim 12, FILTERSTAR as modified teaches at least one cap which can seal at least one of the one or more openings (Foster #17 as it rotates seals openings).

Regarding Claim 13, FILTERSTAR as modified teaches wherein the valve assembly further comprises at least one attachment that fastens to the opening of the valve assembly (Foster Fig. 1 #13).

Regarding Claim 33, FILTERSTAR as modified teaches at least one valve assembly is movably located, but is silent on explicitly teaching in the water inside of the aquarium. However, it would have been obvious to one of ordinary skill in the art to further modify the teachings of FILTERSTAR at the time of the invention since the modification is merely shifting location of a known part [*In re Japikse*, 181 F.2d 1019, 1023, 86 USPQ 70, 73 (CCPA 1950)] for a more efficient use of space.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over FILTERSTAR, S/ENS:841553-01 Inlet pipe; S/ENS:841545-01 Outlet pipe; 3 pages in view of U.S. Patent No. 5,542,451 to Foster as applied to claim 31 and 13 above, and further in view of U.S. Patent No. 6,125,791 to Gunderson et al.

Regarding Claims 14 and 15, FILTERSTAR as modified teaches customizability, but is silent on the at least one attachment includes at least one of a ball/socket assembly of hydrojet, wherein the ball/socket assembly comprises a number of interlocking balls and sockets that can be rotated in at least one direction to allow customizability in water flow pattern. However, Gundersen teaches an aquarium with a ball and socket assembly (Gundersen #62B, 65B, 62B and 64B). It would have been obvious to one of ordinary skill in the art to further modify the teachings of FILTERSTAR with the teachings of Gundersen at the time of the invention since the modification is merely the selection of a known alternate equivalent discharge attachment selected for the advantage of controlling the direction of the outflow. It is general knowledge of one of ordinary skill in the art to be motivated to have adjustability/flexibility for the ergonomic ease of fitting within certain space restrictions and for ease of performing maintenance on the system with minimized disruption to the fish. Merely making a modification for the means of adjustability does not present a patentably distinct limitation [*In re Stevens*, 212 F.2d 197, 198, 101 USPQ 284, 285 (CCPA 1954)].

Response to Arguments

Applicant's arguments with respect to claims 1-5, 9,12-18,30-333 have been considered but are moot in view of the new ground(s) of rejection.

FILTERSTAR teaches the general concept of an interchangeable and customizable water intake and outlet for an aquarium. The water intake and outlet of FILTERSTAR can be positioned in any desirable location within the aquarium. Merely duplicating the number of inlet or outlet ports does not present a patentably distinct limitation. Furthermore, FILTERSTAR teaches the general knowledge that valves can be attached to the assembly inside of the aquarium to regulate flow (FILTERSTAR Fig. G on page 3). It is within the realm of general knowledge of one of ordinary skill in the art that valves are notoriously known components used in piping/flow systems as means to control and regulate the flow along a section of pipe. Merely duplicating the number of valves along the length or along multiple branches of a pipe system is an obvious modification for one of ordinary skill in the art. One of ordinary skill in the art would be motivated by the general knowledge that valves increase control over the system and are often incorporated into systems for ease of performing maintenance or repair on sections of the system with out having to turn off the entire system. Furthermore, the modular components of the claimed water flow system e.g. spray bar, ball/socket, inlet means are known aquarium components. Merely compiling a plurality of these known components into one aquarium does not present a patentably distinct limitation over the teachings of the prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 571-272-6895. The examiner can normally be reached on 7:00am-5:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrea M. Valenti
Primary Examiner
Art Unit 3643

08 March 2007